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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RYOU KANNO, TOSHIMITSU SATO, TAKASHI HIROTSU,
TOMOHIRO SUWA, and ISAO SAITO

Appeal 2009-009363
Application 10/600,658
Technology Center 1700

Decided: December 7, 2009

Before BRADLEY R. GARRIS, CHUNG K. PAK, and PETER F. KRATZ,
Administrative Patent Judges.

PAK, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1, 4 through 6, 11, 12, and 25 through 33, all of the claims pending in the above-identified application. A hearing was held on November 19, 2009. We have jurisdiction pursuant to 35 U.S.C. § 6.

STATEMENT OF THE CASE

The subject matter on appeal is directed to methods for positioning and bending a glass plate (Spec. 1, ll. 3-5 and claims 1, 4 through 6, 11, 12, and 25 through 33). These methods not only accurately position heated and softened glass plates, but also minimize the heated and softened glass plates from being deformed prior to being bent to produce tempered glass plates having desired curved shapes (Spec. 1-4). Further details of the appealed methods are recited in representative claims 1, 6, and 28 reproduced below from the Claims Appendix to the Amended Appeal Brief ("App. Br."), filed May 6, 2008:

1. A method for positioning a glass plate, comprising:
conveying a glass plate by a roller conveyor including a plurality of rollers, each roller having a rolling axis;

determining a first posture of the glass plate being conveyed by the roller conveyor.

comparing the first posture to a previously stored reference posture; and

moving at least one of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least one of the plurality of rollers is in contact with the glass plate in conveyance, to position the glass plate so as to conform the glass plate to the previously stored reference posture,

wherein the moving the at least one of the plurality of rollers includes moving each of the at least one of the plurality of rollers independently with respect to each other roller of the plurality of rollers.

6. A method for positioning a glass plate, comprising:
conveying a glass plate by a roller conveyor including a plurality of rollers, each roller having a rolling axis;

determining a first posture of the glass plate being conveyed by the roller conveyor;

comparing the first posture to a previously stored reference posture; and

simultaneously moving at least two of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least two of the plurality of rollers are in contact with the glass plate in conveyance, to position the glass plate so as to conform the glass plate to the previously stored reference posture.

28. A method for positioning a glass plate, comprising:
conveying a glass plate by a roller conveyor including a plurality of actuators and a plurality of rollers, each roller having a rolling axis;

determining a first posture of the glass plate being conveyed by the roller conveyor;

comparing the first posture to a previously stored reference posture; and

moving at least two of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least two of the plurality of rollers are in contact with the glass plate in conveyance, to position the glass plate so as to conform the glass plate to previously stored reference posture,

wherein each of the at least two of the plurality of rollers is moving by a different one of the plurality of actuators.

As evidence of unpatentability of the claimed subject matter, the Examiner relies on the following sole prior art reference at page 4 of the Examiner's Answer ("Ans."), mailed June 30, 2008:

Letemps

US 5,226,942

Jul. 13, 1993

Appellants request review of the Examiner's rejection of claims 1, 4 through 6, 11, 12, and 25 through 33 under 35 U.S.C. § 103(a) as unpatentable over the disclosure of Letemps¹ (App. Br. 7 and Reply Brief ("Reply Br."), mailed August 27, 2008, 3). Appellants traverse the Examiner's § 103(a) rejection, arguing, *inter alia*, the Examiner's failure to demonstrate that Letemps would have suggested moving at least one or two of the plurality of roller in a direction substantially parallel to the rolling axis when the at least one or two of the plurality of rollers is in contact with the glass plate in conveyance, to position the glass plate so as to conform the glass plate to the previously stored reference posture as required by claims 1, 6, and 28 (App. Br. 23-32 and Reply Br. 4-21).

ISSUE AND CONCLUSION

The dispositive question is: Have Appellants identified reversible error in the Examiner's determination that one of ordinary skill in the art, armed with the teachings of Letemps, would have been led to move at least one or two of the plurality of roller in a direction substantially parallel to the rolling axis when the at least one or two of the plurality of rollers is or are in contact with the glass plate in conveyance, to position the glass plate so as to conform the glass plate to the previously stored reference posture in Letemps's glass plate positioning and bending method within the meaning of 35 U.S.C. § 103(a)? On this record, we answer this question in the affirmative.

¹ The Examiner has withdrawn the rejection of claims 1, 4 through 6, 11, 12, and 25 through 33 under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over the disclosure of Letemps (Ans. 4).

FACTUAL FINDINGS, PRINCIPLES OF LAW AND ANALYSIS

We reverse the aforementioned § 103(a) rejection for the reasons set forth in the Appeal Brief and the Reply Brief filed and add the following primarily for emphasis.

Under 35 U.S.C. § 103, the factual inquiry into obviousness requires a determination of: (1) the scope and content of the prior art; (2) the differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) secondary considerations, if any. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). As stated by our reviewing court in *In re Dow Chemical Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988):

[T]he full field of the invention must be considered; for the person of ordinary skill is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention....

Appellants bear the procedural burden of showing reversible error in the Examiner's § 103(a) rejection. See, e.g., *In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness") (citation and internal quote omitted).

Here, Letemps discloses a method of bending a glass sheet, which comprises detecting the effective position of the glass sheet via a high speed camera as the glass sheet is brought into a reheating furnace in a feed conveyor having rollers, comparing the detected position of the heated (softened) glass sheet with a previously memorized desired position of a

glass plate via a computer, and moving a curving tool having rollers and a shaping bed based on a signal corresponding to the angle difference and/or the transverse shift (cols. 5 and 6). Letemps solves the problem associated with positioning heated (softened) glass plates by moving the curving tool relative to the heated (softened) glass plates, rather than moving the heated (softened) glass plates relative to the curving tool (cols. 1 and 2). That is, Letemps moves the curving tool having rollers in an angle (not shown to be substantially parallel to the rolling axis) relative to a conveyer having rollers to accommodate the angle difference between the detected position and the previously memorized position to properly receive a glass plate in conveyance by the curving tool (*id.*).

Contrary to these teachings of Letemps, the claims on appeal require moving or positioning *the glass plate in conveyance* from a detected posture to the previously stored reference posture via placing the glass plate in contact with at least one or two rollers moving in a direction substantially parallel to the rolling axis. As correctly identified by Appellants at pages 25-26 of the Appeal Brief, the Examiner has not demonstrated that one of ordinary skill in the art would have been prompted to move at least one or two of the plurality of roller, which are in contact with the glass plate in conveyance, in a direction substantially parallel to the rolling axis so as to place the glass plate in the previously stored reference posture contrary to the teachings of Letemps. It follows that Appellants have shown that the Examiner's § 103(a) rejection is not supported by sufficient evidence of *prima facie* obviousness.

Accordingly, we reverse the Examiner's decision rejecting claims 1, 4 through 6, 11, 12, and 25 through 33 under 35 U.S.C. § 103(a) as unpatentable over the disclosure of Letemps.

ORDER/DECISION

In view of the foregoing, the decision of the Examiner is reversed.

REVERSED

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